

WHAT IS CLAIMED IS:

1. Voting apparatus comprising:
- a processor for processing voting information and providing a voting session identifier;
 - a display coupled for receiving voting information from said processor;
 - a voter interface for receiving voting selections made by a voter and coupling same to said processor, said processor providing a voting record including the voting selections;
 - a memory coupled to said processor for storing the voting record and the voting session identifier; and
 - means coupled to said processor for storing the voting record and the voting session identifier in a tangible medium separate from said memory.
2. The voting apparatus of claim 1 wherein said display includes one of a cathode ray tube, a computer display, an LCD display, a display screen, a touch screen display, an aural device, and illuminated buttons.
3. The voting apparatus of claim 1 wherein said voter interface includes one of a keyboard, a touch screen, a button, a switch, voice recognition apparatus, a Braille keyboard, a pen with writing recognition interface.
4. The voting apparatus of claim 1 wherein said processor couples said display to said voter interface for displaying the voter selections from said voter interface on said display.
5. The voting apparatus of claim 1 wherein said means for storing the voting record and the voting session identifier in a medium separate from said non-volatile memory includes at least one of a smart card encoder and a printer.

Sub
B2

6. The voting apparatus of claim 5 wherein said smart card encoder provides information read from the smart card to said processor.
7. The voting apparatus of claim 6 wherein the information read from the smart card includes at least one of a voter identifying number, election information, voting place information and wherein said processor associates the voter identifying number with a voter.
8. The voting apparatus of claim 7 wherein said processor verifies a voter's eligibility to vote.
9. The voting apparatus of claim 5 wherein said smart card encoder is adapted for at least storing information in at least one of a contact-type smart card and a wireless-type smart card.
10. The voting apparatus of claim 5 wherein said printer includes one of a thermal printer, a dot matrix printer, an ink-jet printer, a bubble jet printer, and a laser printer.
11. The voting apparatus of claim 5 further comprising a collection container for receiving a smart card.
12. The voting apparatus of claim 11 wherein said collection container is operatively coupled to said smart card encoder for receiving the smart card after the voting record is stored therein.
13. The voting apparatus of claim 1 wherein said memory is a non-volatile memory.

14. The voting apparatus of claim 13 wherein said non-volatile memory includes at least one of a floppy disk, a computer hard disk, a writeable optical disk, a memory module, a flash memory, a magnetic tape, an optical tape, a semiconductor memory, a random-access memory and a programmable read-only memory.
15. The voting apparatus of claim 1 wherein said processor includes means for generating the voting session identifier.
16. The voting apparatus of claim 15 wherein said means for generating includes at least one of a random number generator, a pseudo-random-number generator, a random character generator, a pseudo-random-character generator, and a look-up table.
17. The voting apparatus of claim 1 wherein the voting session identifier is unrelated to a particular voter's personal identity.
18. The voting apparatus of claim 1 further comprising a communication interface coupled to said processor for communicating the voting record to an external device.
19. The voting apparatus of claim 18 wherein said external device includes a computer for tabulating the voting record.
20. The voting apparatus of claim 1 wherein said voter interface includes means for confirming the voting selections, and wherein said means for confirming is coupled for storing the voting record in the smart card and in said memory responsive to confirmation of the voting selections.

21. The voting apparatus of claim 1 in combination with a smart card including a memory for storing at least one of the voting session identifier and the voting record.
22. In combination with an electronic voting machine comprising a processor, a display, a voter interface and at least one memory for storing a voting record of each one of a number of voting sessions,
a generator of a voting session identifier for each voting session, which voting session identifier is unrelated to the personal identity of a particular voter conducting that voting session, and
a printer providing a tangible receipt containing at least the voting record and the voting session identifier for each voting session.
23. The combination of claim 22 further comprising a smart card encoder for storing at least the voting record and the voting session identifier for each voting session in the memory of a smart card.

24. A voting system comprising:
- a computer for tabulating voting records;
 - at least one voting machine; said voting machine comprising:
 - a processor for processing voting information and providing a voting session identifier,
 - a display coupled for receiving voting information from said processor,
 - a voter interface for receiving voting selections made by a voter and coupling same to said processor, said processor providing the voting selections in a voting record,
 - a memory coupled to said processor for storing the voting record and the voting session identifier; and
 - means coupled to said processor for storing the voting record and the voting session identifier in a tangible medium separate from said memory; and
 - means for communicating the voting record from said at least one voting machine to said computer for tabulating the voting record.
25. The voting system of claim 24 wherein the voting session identifier is unrelated to a particular voter's personal identity.
26. The voting system of claim 24 wherein said means for storing the voting record and the voting session identifier in a tangible medium includes at least one of (a) a smart card encoder coupled to said processor for storing the voting record and voting session identifier in a smart card, and (b) means coupled to said processor for providing a tangible human-readable record including the voting record and the voting session identifier.
27. The voting system of claim 26 wherein said smart card encoder provides information read from the smart card to the processor of the voting machine.

28. The voting system of claim 27 wherein the information read from the smart card includes a voter identifying number, and wherein said processor associates the voter identifying number with the voter.
29. The voting system of claim 27 wherein said means for communicating communicates the information read from the smart card to said computer, and wherein said computer communicates verification of voter registration to said processor.
30. The voting system of claim 29 wherein said processor is responsive to the registration verification to enable said voter interface to receive voting selections.
31. The voting system of claim 26 further comprising a smart card reader separate from said voting machine for reading the voting record stored in the smart card, whereby an independent tally of the voting record may be provided.
32. The voting system of claim 31 further comprising means for tabulating and publishing the voting record read by said separate smart card reader.
33. The voting system of claim 32 wherein said means for publishing includes making at least one of the voting record and voting session identifier available through the Internet.
34. The voting system of claim 24 further comprising means for publishing the voting records tabulated by said computer.
35. The voting system of claim 34 wherein said means for publishing includes making at least one of the voting record and voting session identifier available through the Internet.

36. The voting system of claim 24 wherein said means for communicating includes at least one of an electrical cable, a local area network, a communication hub, a public telephone system, a radio communication, and an Internet connection.
37. The voting system of claim 24 wherein said means for communicating is operative during at least one of (a) limited times during a period for voting, (b) all times in the period for voting, and (c) a time after the period for voting.
38. The voting system of claim 26 further comprising a collection container operatively coupled to said smart card encoder for receiving the smart card after the voting record is stored therein.
39. The voting system of claim 24 wherein said voter interface includes means for confirming the voting selections.
40. The voting system of claim 39 wherein said means for confirming is coupled to the processor for storing the voting record in said memory and in said tangible medium separate from said memory responsive to confirmation of the voting selections.
41. The voting system of claim 39 wherein said means for confirming is coupled for causing said means for storing the voting record in a tangible medium to provide the tangible medium having at least the voting record thereon responsive to confirmation of the voting selections.
42. The voting system of claim 24 in combination with a smart card including a memory for storing at least the voting session identifier and the voting record.

43. The voting system of claim 24 wherein the voting session identifier includes a first portion that is unrelated to a particular voter's personal identity and a second portion containing information relating to at least one of a date of an election, a time of the voting session, an identity of the election district, and an identity of a polling place.
44. A method for voting comprising:
- initiating a voting session;
 - providing an identifier for the voting session;
 - creating a voting record including the voting session identifier and voting selections made by the voter during the voting session;
 - storing the voting record including the voting session identifier and the voting selections in a memory; and
 - storing the voting record including the voting session identifier and the voting selections in a tangible medium separate from the memory.
45. The method of claim 44 further comprising providing an identifying number to a voter, and utilizing the identifying number for causing said initiating a voting session.
46. The method of claim 45 wherein providing an identifying number to a voter includes providing a smart card having the identifying number stored therein.
47. The method of claim 46 wherein said utilizing the identifying number includes reading the identifying number stored in the smart card, and applying the identifying number so read to initiate the voting session.
48. The method of claim 45 wherein utilizing the identifying number includes reading the identifying number stored in the smart card, and applying the identifying number so read for verifying eligibility to vote.

49. The method of claim 48 wherein verifying eligibility to vote includes at least one of verifying that the voter is registered to vote and verifying that the identifying number has not previously been used to vote.
50. The method of claim 44 wherein said storing the voting record in a tangible medium includes storing the voting record in a smart card.
51. The method of claim 44 wherein said storing the voting record in a tangible medium includes providing a printed receipt containing the voting record including the voting session identifier and the voting selections.
52. The method of claim 44 further comprising tabulating the voting record including the voting session identifier and the voting selections from the memory.
53. The method of claim 52 further comprising publishing the voting record including the voting session identifier and the voting selections tabulated from the memory.
54. The method of claim 44 further comprising tabulating the voting record including the voting session identifier and the voting selections from the tangible medium.
55. The method of claim 54 further comprising publishing the voting record including the voting session identifier and the voting selections tabulated from the tangible medium.
56. The method of claim 44 wherein said storing the voting record in a tangible medium separate from the memory includes storing the voting record in a smart card and providing a printed receipt containing the voting record.

57. The method of claim 56 further comprising comparing the voting records from any two or more of the memory, the smart card and the printed receipt.
58. The method of claim 44 further comprising confirming the voting selections.
59. The method of claim 58 wherein said confirming the voting selections causes at least one of said storing the voting record in a memory and said storing the voting record in a tangible medium separate from the memory.
60. In an electronic voting system comprising a voting machine for providing a number of voting sessions for a number of voters:
for each of the number of voters, a chip card providing a registration record and a storage medium for recording the voter's voting selections, wherein said chip card has substantial memory for recording all of the voting selections of one voter;
a chip-card reader/writer for coupling the registration information to the voting machine and for recording each voter's voting selections in the storage medium of that voter's chip card after that voter's voting session is completed.
61. The electronic voting system of claim 60 wherein the registration record stored in said chip card includes at least one of a voter-unique serial number representative of voter identity and a processing code representative of election information that cannot be readily changed after said chip card is issued.
62. The electronic voting system of claim 60 wherein the storage medium of said chip card has a capacity of more than 2 Kilobytes.

63. The electronic voting system of claim 60 wherein the storage medium of said chip card has a capacity of more than 8 Kilobytes.
64. The electronic voting system of claim 60 wherein the storage medium of said chip card has a capacity of more than 32 Kilobytes.
65. The electronic voting system of claim 60 wherein the registration record of said chip card includes a representation of at least one of a voting district, an election, a voter-unique serial number, and voter identification information.
66. The electronic voting system of claim 60 wherein said chip card is collected at the end of the voting session after all of the voter's voting selections are encoded into the storage medium thereof.
67. The electronic voting system of claim 66 wherein said collected chip card is read for producing the record of the voter's voting selections stored therein for at least one of counting the vote and publishing the vote.
68. The electronic voting system of claim 60 wherein the registration record of said chip card includes a voter-unique serial number for that voter, and wherein a tangible receipt is provided including that voter's voter-unique serial number and that voter's voting selections.
69. The electronic voting system of claim 60 wherein voting records for each of the voters are published or are posted on the Internet, wherein each voting record includes the voting selections of a particular voter and that voter's voter-unique serial number, whereby the voting is transparent.
70. The electronic voting system of claim 69 wherein the voter-unique serial number does not reveal the identity of the voter, whereby the voting is transparent and voter privacy is provided.

71. The electronic voting system of claim 60 wherein the voting machine includes one of a keypad and a touch screen for the voter making voting selections.
72. The electronic voting system of claim 60 including a plurality of voting machines as set forth in claim 60 connected to a computer via one of a local area network and a communication hub.
73. The electronic voting system of claim 72 wherein the voting machines are not connected to the computer via the Internet during the voting sessions.
74. A storage medium encoded with machine-readable computer instructions for conducting a voting session comprising:
means for causing a computer to initiate the voting session;
means for causing the computer to provide an identifier for the voting session;
means for causing the computer to create a voting record including the voting session identifier and voting selections made by the voter during the voting session;
means for causing the computer to store the voting record including the voting session identifier and the voting selections in a memory; and
means for causing the computer to store the voting record including the voting session identifier and the voting selections in a tangible medium separate from the memory.
75. The storage medium of claim 74 wherein said means for causing the computer to store the voting record in a tangible medium includes causing the computer to provide a printed receipt containing the voting record including the voting session identifier and the voting selections.

Sub B

76. The storage medium of claim 74 wherein said means for causing the computer to store the voting record in a tangible medium includes causing the computer to store the voting record including the voting session identifier and the voting selections in the memory of a smart card.
77. The storage medium of claim 74 wherein said means for causing the computer to store the voting record in a memory includes causing the computer to store the voting record including the voting session identifier and the voting selections in at least two independent non-volatile memories.
78. The storage medium of claim 74 wherein said means for causing the computer to store the voting record in a memory and said means for causing the computer to store the voting record in a tangible medium are responsive to confirmation of the voting selections by a voter.

add
B5 ✓